Navy Data Environment (NDE)
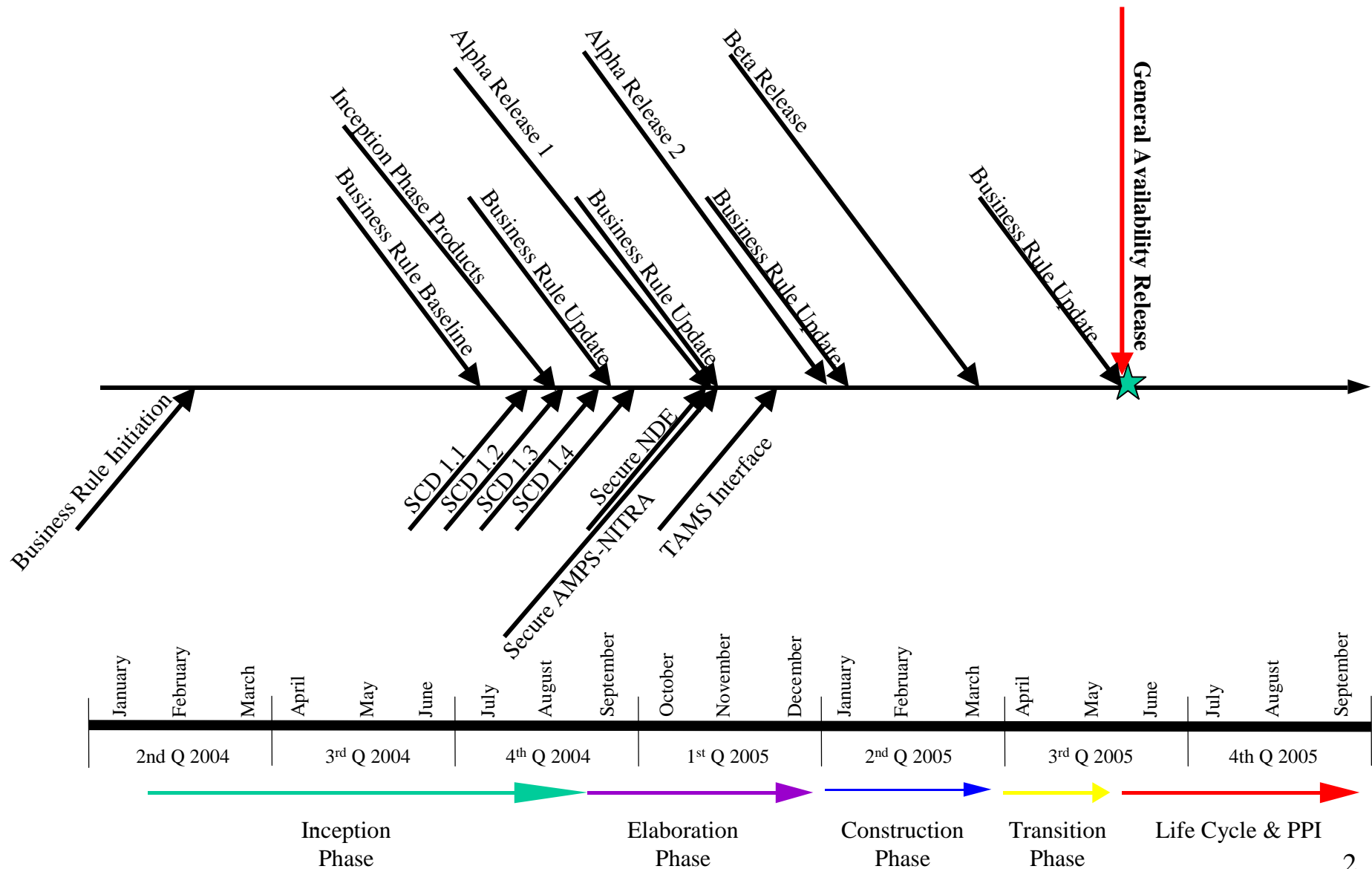
Navy Modernization (NM)

SHIPMAIN Entitled Process

Program Review # 3

September 2004

# NDE NM Entitled Process Time Line



2

# Navy Modernization State



Legend
ELLIPSE = Multi-purpose and Multi-Application system
NDE = Navy Data Environment
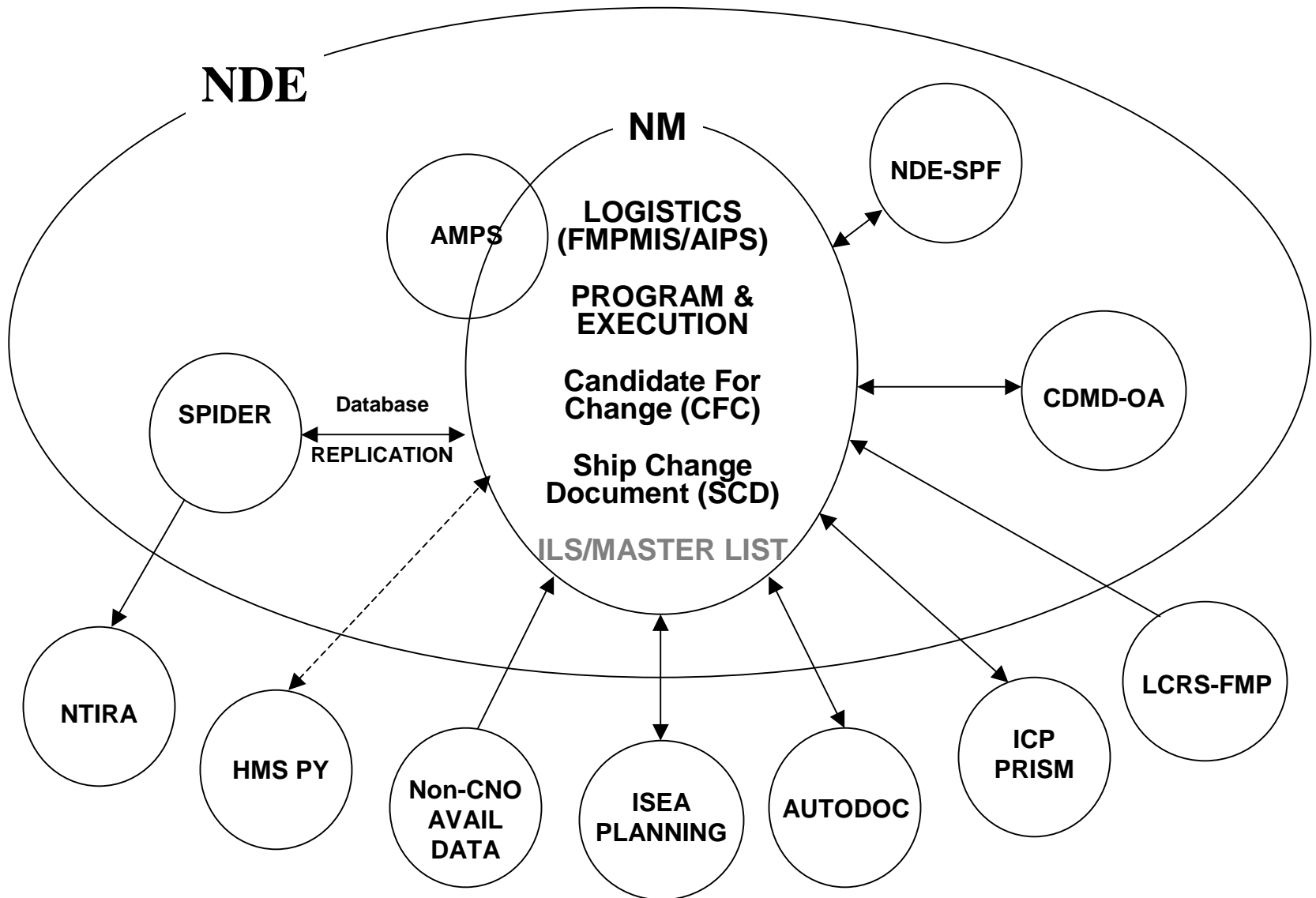NM = Navy Modernization
--------- = Planned Interface
——— = Existing Interface
⊙⊙ = Shared Database – Not entirely NM
▭ = Planned Future Element

**NDE**

**NM**

**AMPS**

**LOGISTICS (FMPMIS/AIPS)**

**PROGRAM & EXECUTION**

**Candidate For Change (CFC)**

**Ship Change Document (SCD)**

**ILS/MASTER LIST**

**NDE-SPF**

**CDMD-OA**

**SPIDER**

Database
REPLICATION

**NTIRA**

**HMS PY**

**Non-CNO AVAIL DATA**

**ISEA PLANNING**

**AUTODOC**

**ICP PRISM**

**LCRS-FMP**

3

# SHIP CHANGE DOCUMENT (1 OF 2)

## SCD – Release 1.2

| | SCHED. | REVISED | ACTUAL |
|---|---|---|---|
| AFOM Spreadsheet | 8/5/04 | | 8/5/04 |
| CBA Spreadsheets - Phases II & IIa | 8/5/04 | | 8/5/04 |
| Creation of AUTOSIR Process | 8/5/04 | | 8/5/04 |
| Security Enhancements (Roles) | 8/7/04 | | 8/7/04 |
| Initial RCP Development | 8/8/04 | | 8/9/04 |
| Release to Test/Testing | 8/25/04 | | 8/25/04 |
| Release to Production | 8/26/04 | | 8/26/04 |

## SCD – Release 1.3

| | SCHED. | REVISED | ACTUAL |
|---|---|---|---|
| Assign of Additional Roles (Workflow Mgmt.) | 8/19/04 | 8/31/04 | 8/31/04 |
| Revised SCD Export | 8/20/04 | | 8/20/04 |
| AUTOSIR Process available online | 8/20/04 | | 8/20/04 |
| RCP Expanded Format | 8/23/04 | | 8/23/04 |
| SCD Phase III Entry Forms | 8/25/04 | | 8/25/04 |
| Allow for POC (TYCOM, PARM, TECH) requests | 9/01/04 | | 9/01/04 |
| Release to Test/Testing | 9/01/04 | | 9/01/04 |
| Release to Production | 9/02/04 | 9/03/04 | 9/03/04 |

# SHIP CHANGE DOCUMENT (2 0F 2)

| SCD – Release 1.4 | SCHED. | REVISED | ACTUAL |
|---|---|---|---|
| Enhance Email Notification Processes | 9/09/04 | 9/16/04 | |
| SCD Status - Pull-downs by Phase | 9/15/04 | | On target |
| Add Sponsor Role / RCP Functionality | 9/20/04 | | On target |
| AFOM Admin. Capability | 9/20/04 | | On target |
| Enhance some Filtering capabilities | | | |
|     (e.g. Browse by Class, Ship) | 9/24/04 | | On target |
| Switch to new POC Pick Lists | | | |
|     (TYCOM, PARM, TECH) | 9/24/04 | | Planned * |
| Release to Test/Testing | 9/28/04 | | On target |
| Release to Production | 10/01/04 | | On target |

Note: * Timing of this action is conditional upon the number of received requests, from users entering SCDs, for individuals identified as needing to be added to the three Pick Lists.

# SHIP CHANGE DOCUMENT

- **Business Process Changes**
  - SCD is Prototype – Requirements change on  a routine basis
- **Resources**
  - Resources sufficient for approved SCD requirements development
- **Funding to Complete**
  - Funding provided
- **Risks**
  - Detailed requirements and associated documentation, still evolving
- **Critical Path**
  - Timely identification of TYCOM, PARM, & Technical POCs and population of appropriate SCD Pick Lists (need to convert over from existing Pick lists)
- **Risk Mitigation**
  - Working with SHIPMAIN Team Leads weekly on changing requirements

# Secure NDE-NM Environment

## Establish Secure Operations

| | SCHED | REVISED | ACTUAL |
|---|---|---|---|
| Submit RFS to DISA | 3/17/04 | 3/17/04 | 3/17/04 |
| Build secure area | 3/26/04 | 4/22/04 | 4/22/04 |
| Obtain Security Approval for physical space | 4/9/04 | 5/07/04 | 5/7/04 |
| Obtain SIPRNET Connection | 7/23/04 | 9/22/04 | At Risk |
| Develop SOP, Risk, Security Documentation | 7/02/04 | 10/08/04 | Caution |
| Receive SIPRNET Approval | 7/2/04 | 11/05/04 | Caution |
| Modify Un-Class Application for Class | 7/2/04 | 9/24/03 | On target |
| Hardware/Software (Procure/Install/Conf.) | 8/2/04 | 9/30/04 | On target |
| Cross Domain Capability - Auto Info.Transfer | 9/30/04 | 10/29/04 | Caution |
| Operational | 8/2/04 | 11/26/04 | Caution |
| Secure AMPS - NITRA Interface (2-way) | 8/6/04 | 10/29/04 | Caution |
| **TAMS Interface** | 9/10/04 | 11/26/04 | Caution |

Notes: * Recent postponement of installation. Delays some succeeding events

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# Secure NDE-NM Environment

- **Business Process Changes**
  - **None**
- **Resources**
  - Programmers in place
  - HW still being delivered/installed
- **Funding to Complete**
  - Funding provided
- **Risks**
  - Sequential series of events – impacts on other events
  - DISA SIPRNET approval timeframe (standard advertised as 150 days)
  - Cannot start operations until approvals are in place.
- **Critical Path**
  - Installation of SIPRNET line / CRYPTO gear (Delayed till 9/22)
  - Security Accreditation
  - DISA approval
- **Risk Mitigation**
  - Apply sufficient/focused project management attention to facilitate movement through DISA process

# Overall Entitled Process Integration

- Must have a sound transition plan
  - Items to be considered:
    - Moving Candidate for Change  (CFCs) & SCDs to real Alterations
    - Processing of existing approved (Legacy) Alterations in NDE-NM
    - Modification needed to Legacy Applications (e.g. Alt Identifier change)
    - Impacts on existing Business Rules for processing current Alterations types (e.g. ORDALTS, SHIPALTS, ECs, FCs)
    - Impacts on existing Legacy Application Process flows (Funding, Execution, Material, etc.)

# Software Development

|  | Orig | PR 3 | ACTUAL |
|---|---|---|---|
| **Inception Phase** | | | |
| • Entitled Process Business Rule Baseline | 7/7/04 | 7/7/04 | 7/7/04 |
| • Inception Phase Product Delivery | 8/13/04 | 8/13/04 | 8/13/04 |
| • Entitled Process Business Rule Baseline Update | 8/13/04 | 8/13/04 | 8/13/04 |
| • Navy Approval of Inception Phase Products | 9/1/04 | 9/1/04 | 9/1/04 |
| **Elaboration Phase** | | | |
| • Iteration 1 Ends | 10/4/04 | 10/4/04 | **On Target** |
| • Alpha Release 1 (new entry) | 11/08/04 | 11/08/04 | **At Risk** |
| • Iteration 2 (Elaboration Phase) Product Delivery | 11/29/04 | 11/29/04 | **On Target** |
| • Entitled Process Business Rule Update | 11/29/04 | 11/29/04 | **On Target** |
| • Navy Approval of Elaboration Phase Products | 12/13/04 | 12/13/04 | **On Target** |
| **Construction Phase** | | | |
| • Iteration 3 | 1/3/05 | 1/3/05 | **Caution** |
| • Iteration 3 (Construction Phase) Product Delivery | 1/17/05 | 1/17/05 | **On Target** |
| • Alpha Release 2 (new entry) | 1/10/05 | 1/10/05 | **At Risk** |
| • Beta Release | 3/21/05 | 2/28/05 | **At Risk** |
| **Transition Phase** | | | |
| • General Availability Release | 5/2/05 | 4/11/05 | **At Risk** |
| • Entitled Process Business Rule Update | 5/2/05 | 4/11/05 | **Caution** |

# Software Development

- The following metrics will regularly be reported

| | Metric | Current Value | Inception Phase | Elaboration Phase | Construction Phase | Transition Phase |
|---|---|---|---|---|---|---|
| **Requirements** | Number of Use Cases | 13 | 13 | 40/5 | 40/5 | 40/5 |
| | Number of Supplemental Requirements | 59 | 59 | 65 | 70 | 80 |
| | Changed Requirements Percentage | 0 | NA | 75 | 50 | 10 |
| | Use Case Completeness | 0 | NA | 40 | 80 | 100 |
| | Supplemental Requirement Completeness | 0 | NA | 50 | 80 | 100 |
| | | | | | | |
| **Design** | Number of Classes | 0 | 0 | 20 | 30 | 40 |
| | Number of Operations | 0 | 0 | 100 | 150 | 200 |
| | Design Completeness | 0 | 0 | 40 | 90 | 100 |
| | Implementation Completeness | 0 | 0 | 30 | 80 | 100 |
| | | | | | | |
| **Testing** | Number of Test Cases | 0 | 0 | 15 | 20 | 25 |
| | Number of New Defects | 0 | 0 | 70 | 45 | 20 |
| | Number of Defects Resolved | 0 | 0 | 30 | 50 | 55 |
| | System Completeness (Test Pass) | 0 | 0 | 40 | 80 | 100 |
| **Cost (Actual vs Projected)** | Projected vs Actual Chart | | | | | |

Note 1: Number of Use Cases indicates the total number of Use Cases identified to address the entire Entitled Process Business Rule Set and the number of Use Cases to be defined in detail and instantiated in software within this project.

Note 2: Other metrics are based on only those Use Cases which are defined in detail.

# Software Development

- All identified risks

| Title | Probability | Impact | Level |
|---|---|---|---|
| Requirements creep | E | 5 | H |
| Extended use of the Manual Entitled process | E | 5 | H |
| Classified software development | D | 4 | H |
| Incomplete business model and rules | D | 4 | H |
| Mixing new development & SW Maintenance at NSLC | C | 3 | M |
| Financial management-related requirements | B | 5 | M |
| AFOM Model practicality | C | 3 | M |
| Weak overall line of project authority | D | 2 | M |
| AFOM model accuracy | B | 4 | M |
| RUP and IBM Rational tools unfamiliarity | B | 4 | M |
| Intro of new COTS/GOTS to production environment | C | 2 | M |
| Data communications capacity | B | 3 | M |
| Resistance to business process change | C | 1 | L |
| Reviews not realized on time | C | 1 | L |
| Distributed team | B | 1 | L |
| NDE production environment | B | 1 | L |

# Software Development

- The following Risks are currently being managed



Total No. of Risks
as of August 13, 2004
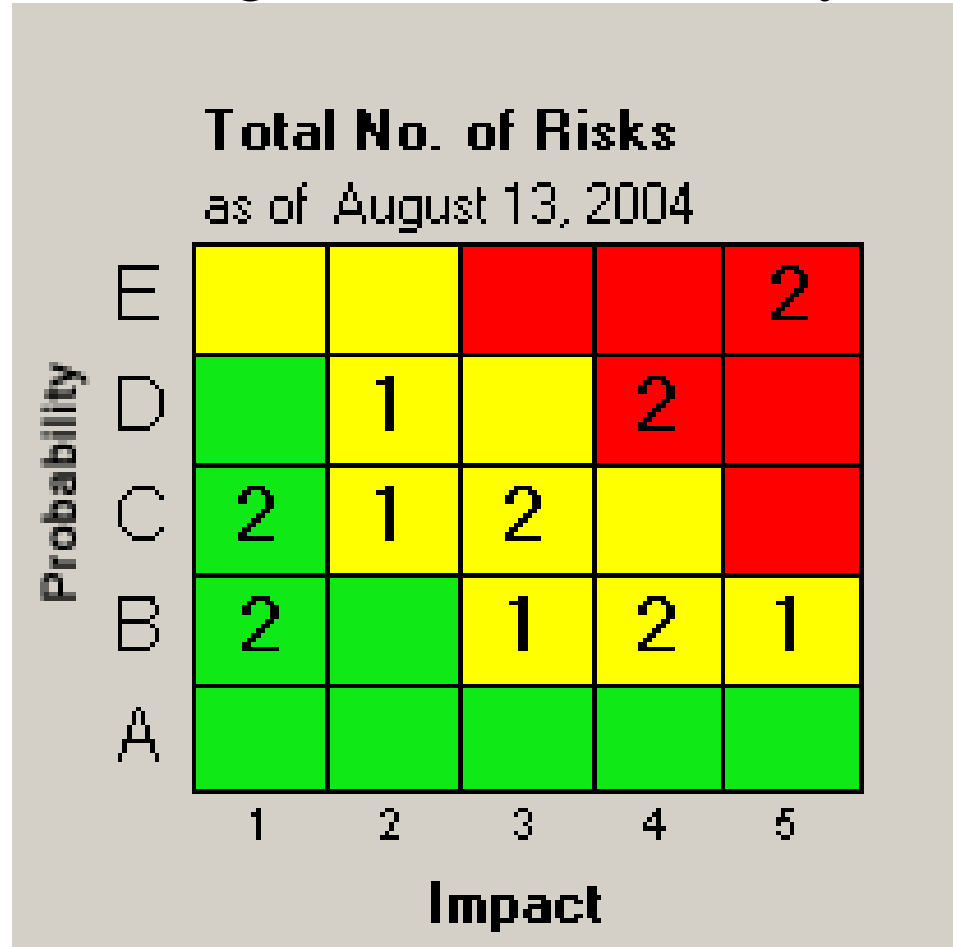
# Software Development

- **Entitled Process Definition**
  - Need to establish baseline and configuration control on Business Rules
    - Collected e-mail and other documented change requests to Interim SCD
    - BRTs establishing "rules" outside Business Rule "Baseline" – Need to obtain BRT Outbriefs
  - Need to define all Business Rules which drive software to be developed
  - Need to promptly adjudicate Business Rule Issues – SMEs are working to do so
  - Need to validate that automation estimates comply with Stakeholders' expectations
    - SCD Submitter "will" check if SCD could be re-submitted or combined with current SCD – How much automation?
- **Resources**
  - Resource limitations may minimize final product – need to re-allocate or obtain additional funding
  - Inception Phase Products will be the basis for a Scope and Funding Re-Baseline – Options Paper complete with budgets associated with each of four options
- **Funding to Complete**
  - Funding provided or in process
  - Additional funding requirements dependent upon option selected
- **Risks**
  - Requirements Creep
  - Incomplete business model and rules
  - Extended use of Entitled process
  - Classified software development

# Software Development

- ## Critical Path
  - **Entitled Process Definition**
    - Still in flux, coming into better focus and under configuration control but still not there
  - **Inception Phase Product Completion / Acceptance**
    - Delivered on August 13
    - Inception Phase products are approved and this phase is over
  - **Elaboration Phase Product Completion / Acceptance Iteration 1 (Iteration 2)**
    - Need overall SHIPMAIN, Entitled Process, and software Scope defined
    - Elaboration Phase activities have begun
    - Elaboration Phase activities may need to be re-directed upon Option selection
  - **Construction Phase Product Completion / Acceptance Iteration 3 (Iteration 4)**
    - None
  - **Transition Phase Product Completion / Acceptance - General Availability Release**
    - None

# Software Development

- **Critical Path (cont) - Risk Mitigation**
  - **Requirements Creep**
    - Use a requirements management process that will ensure that the impact of a change is fully understood prior to including it in the scope.
      - » Process plan approved
    - Use CM Process
      - » Process approved, baselines will be established
  - **Extended use of Entitled process**
    - Deliver incremental functionality through multiple releases allowing earlier transition from the manual process.
      - » Part of Software Development Plan
    - Leverage use of SCD module in the development of SCD data fields used in oracle database
      - » Surveying current assets to determine re-use and lessons learned opportunities
  - **Incomplete business model and rules**
    - Clearly define Scope of software development and determine iterative software development approach. Then provide appropriate funding and schedule to meet development approach.
      - » Business Rule definitions and issue adjudication are progressing, although slowly
      - » Funding decisions are TBD
  - **Classified software development**
    - Follow DITSCAP development processes in each phase
      - » In software development process
    - Develop an software architecture to accommodate both classified and unclassified FMP elements.
      - » Classification included as software "Feature"
    - Determine classification implications and include in Software Development Plan
      - » Plan complete and approved, currently investigating classification implications

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# Entitled Process Cost - Total



Entitled Process Software Total Projected vs. Actual Costs
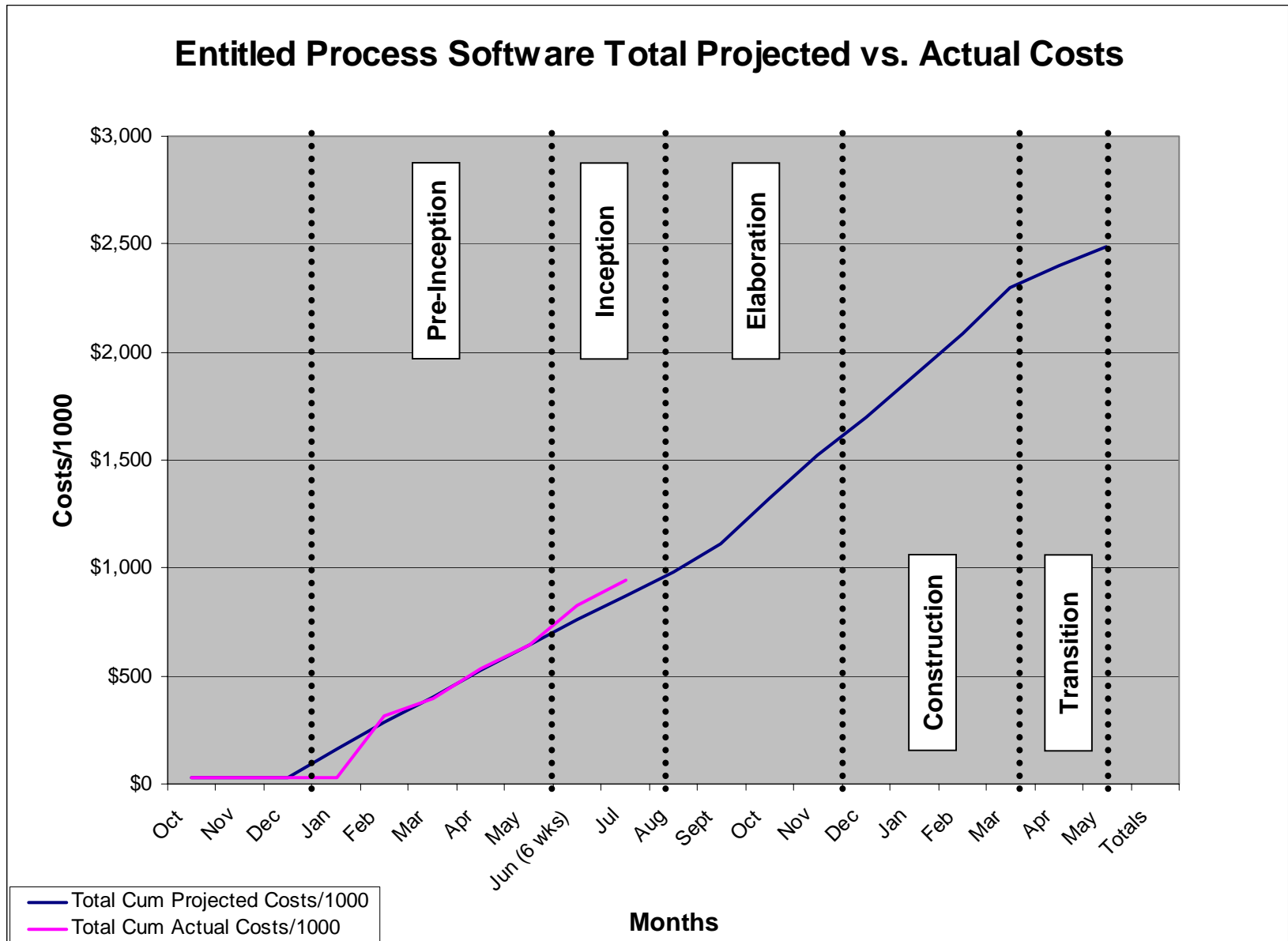
# NDE-NM Entitled Process Summary

| Functional Area | | Level of Confidence |
|---|---|---|
| • **Short Term Entitled Process** | | |
|   – **Ship Change Document** | | |
|   – Release 1.1 | July 22, 2004 | Complete |
|   – Release 1.2 | August 26, 2004 | Complete |
|   – Release 1.3 | Sept 3, 2004 | Complete |
|   – Release 1.4 | Oct 10, 2004 | HIGH |
| • **Short Term Entitled Process** | | |
|   – **Secure NDE-NM Environment** | | |
|   – Operational | Nov 26, 2004 | MEDIUM |
|   – Secure AMPS – NITRA (2-way) | Oct 29, 2004 | MEDIUM |
|   – TAMS Interface | Nov 26, 2004 | MEDIUM |
| • **Long Term Entitled Process** | | |
|   – **Software Development** | | |
|   – Inception Phase | Aug 13, 2004 | Complete & Approved |
|   – Elaboration Phase | Nov 29, 2004 | MEDIUM |
|   – Construction Phase | Mar 21, 2005 | MEDIUM |
|   – Transition phase | May 2, 2005 | MEDIUM |

# NDE NM Entitled Process Action Items

**NAVY DATA ENVIRONMENT- NAVY MODERNIZATION (NDE-NM) PROGRAM REVIEW MEETING**
**ACTION ITEMS,**
**What, Who, & When (W3's)**

**W3's NDE Program Review Board Meeting 18 August 2004**

| Item No. | What | Who | When | Status Report |
|---|---|---|---|---|
| 2-1 | Update Navy Modernization State Diagram in Program Review #2 presentation. | Pat Turner (NSLC) | 13 Sep 04 | **Completed.** Straw-man provided for review in preparation for Program Review. |
| 2-2 | Reword SCD Slide (Release 1.2) in Program Review #2, "Creation Entitled Process CCB." | Pat Turner (NSLC) | 13 Sep 04 | **Completed.** Reworded to read: Creation of AUTOSIR Process – (Automated System Improvement Request) |
| 2-3 | Update SCD slide and show significant milestones and report any "Risk to Schedule" and "Risk to Cost." | Pat Turner (NSLC) | 13 Sep 04 | **Completed.** Updated SCD slides will reflect milestones and report any risk to schedule and cost. |
| 2-4 | a. Add validation date for Inception Phase.<br>b. Add "predicted values" for each metric for the 4 phases listed on the Metrics Slide. | Bill Mick (ASC) | 13 Sep 04 | **Completed.** Requested slides have been updated to reflect feedback from 18 August 04 NDE Program Review. |
| 2-5 | Provide example of metrics that SPAWAR gathered on successful software programs. | Dave Smith (SPAWAR) | 13 Sep 04 | **NO STATUS** |

# NDE NM Entitled Process Action Items (Continued)

**W3's NDE Program Review Board Meeting 14 July 2004**

| Item No. | What | Who | When | Status Report |
|---|---|---|---|---|
| 1-1 | Resolve discrepancies identified in the Functional Allocation brief to cement PEO C4I commitment to fund the balance.  Working group to be identified and led by Mr. Billy Douglas to determine:  1) specific data elements to be captured; 2) what is the authoritative source for these data elements; 3) where will these data elements be stored. | Billy Douglas (NAVSEA) | TBD | **Action Extended.**  Due date to be determined. |

**W3's Software Requirements Review Board Meeting 27 May 2004**

| Item No. | What | Who | When | Status Report |
|---|---|---|---|---|
| S-1 | Reach agreement on authoritative database (NDE) including transition plan. | Patrick Haney (NAVSEA) | 01 Oct 04 | **NO STATUS REQUIRED** |

# BACKUP SLIDES

## SHIP CHANGE DOCUMENT (SCD)

Electronic Automated System Improvement Request (AUTOSIR) Process

## Pending Ship Change Documents

PHASE I Change Tracking Number 27 (HFIP Gateway System TEMPALT) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

PHASE I Change Tracking Number 45 (Upgrade Ship's Laundry) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

PHASE I Change Tracking Number 54 (Upgrade N3/N31 Office) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

PHASE I Change Tracking Number 55 (Accoustic Communications (ACOMMS)) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

PHASE I Change Tracking Number 60 (Installation of the P53C Mine Detection Sonar System Mod) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

PHASE I Change Tracking Number 64 (Upgrade N3/N32 Office) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

PHASE I Change Tracking Number 65 (Upgrade EW Equipment Room Heat Exchanger) is under TAT-review. It is waiting to be completed and submitted to the SPM-review.

Iter: Reset | **Severity:** ALL ▼ | **Bug-Enh:** ALL ▼ | **Status:** ALL ▼ | **Owner:** ALL ▼ | **Assigned:** ALL ▼

OMP: 7   FDBK: 1   NEW: 2   OPEN: 3 (Cri: 2)

| ☑ ID ↓ | ☑ Subject | ☑ Update | ☑ Owner | ☑ Stat | ☑ Sev | ☑ B-E | ☑ FT | ☑ Est Dt | ☑ Module | ☑ Assn To | ☑ Release |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Modify SCD Tables and Column for new values | 09-03-04 | NGILMORE | COMP | Critical | E | N | 07-23-04 | SCD | K Baird | 1.0.1 |
| 2 | Create Export for SCD | 08-24-04 | NGILMORE | OPEN | Critical | E | N | 07-29-04 | SCD | K Brown | 1.0.1 |
| 3 | Modify & add tables and columns to SCD for Phase II | 08-25-04 | NGILMORE | COMP | Critical | E | N | 07-30-04 | SCD | K Baird | 1.0.1 |
| 4 | Correction to Privileges in SCD | 08-25-04 | NGILMORE | COMP | Critical | B | N | 08-09-04 | SCD | J Hutchinson | 1.0.1 |
| 6 | Adding SECNAV Waiver to SCD | 08-23-04 | NGILMORE | FDBK | null | E | N | 09-18-04 | SCD | P Lee | 1.0.1 |
| 8 | Additional Fields to the Database for SecNav and Signture | 08-25-04 | MMEHELIS | COMP | Medium | E | N | 09-19-04 | SCD | J Hutchinson | 1.0.1 |
| 9 | Change to the AFOM Number | 09-03-04 | MMEHELIS | COMP | Medium | B | N | 09-20-04 | SCD | K Baird | none |
| 10 | Moadification to SCD e-mail notifications | 08-24-04 | NGILMORE | OPEN | null | B | N | 08-08-04 | SCD | K Brown | 1.0.1 |
| 12 | Modiification to the SCD page | 08-25-04 | NGILMORE | OPEN | Critical | B | N | 09-25-04 | ENTITLE | P Lee | none |
| 13 | Modify SCD Tables and columns | 09-02-04 | NGILMORE | COMP | null | E | N | 09-25-04 | SCD | K Baird | 1.0.3 |
| 14 | Export function | 08-30-04 | DLAPOINTE | NEW | Medium | E | N | 09-30-04 | SCD | Unassigned | none |
| 15 | SCD/CBA Spreadsheet "Export" Button | 09-02-04 | RKAELIN | NEW | Medium | B | N | 10-01-04 | SCD | Unassigned | none |
| 16 | Test Autosir | 09-02-04 | PTURNER | COMP | Low | B | N | 10-02-04 | SCD | Unassigned | none |

# ENTITLE Autosir Detail

| Send->OPS | New | Print | Exit |

**Autosir:** 15     **Status:** NEW     **Source:** RICHARD KAELIN     **Phone:** (502)364-6623     **Email:** richard.kaelin@navy.mil

## Detail                                                                 Hide

| Answer | Reopen | Open | Complete | Cancel | Save |

Subject: `SCD/CBA Spreadsheet "Export" Butto`     Sub-Module: `SCD ▼`

Severity: `Medium ▼`     Type: ⦿ Bug  ◯ Enhancement

Opened: ⦿ Original  ◯ Reopened     Work Around: ⦿ None  ◯ Easy  ◯ Difficult

OS Version: `                    `     User Tested? : ◯ Yes  ⦿ No

Attachments: `===============  ▼` [View] [Save As] ✂ 🖨

Add Attachment: `                    ` [Browse...] [Send]

Creation Date: `09/01/2004`     Estimated Date: `10/01/2004`  mm/dd/yyyy

Last Updater: `MMEHELIS`     Last Updated: `09/02/2004`

Symptoms:
```
What exactly is the "Export"
button supposed to get me? I
have selected it within both
the SCD and CBA Spreadsheet
modules and the screen changes
as if something is going to
happen. However, after several
minutes of waiting the computer
locks up and I have to restart
the computer - a very time
```

Example:
```
Specifically, I have attempted
the "Export" function while
working on SCDs/CBAs 58 and 61,
for which I am a submitter.
```

## CCB Remarks                                                           Hide

Save

Remarks:

Done     🔒 🌐 Internet

## Developer Feedback

Hide

Feedback | Hold | Pend | Save

Assigned To: Unassigned

Problem Area: ===============

Ready for Release: ☐

Priority: 99

QA Tested? : ○ Yes ● No

Dev Tested? : ○ Yes ● No

Hours to Fix: 0.00     Hours to Test: 0.00

Attachments: ===============   View   Save As   ✂ 🖨

Add attachment: [        ]   Browse...   Send

Attached DCRs: ===============   View

Review:
```
9/2/04 MLM - called user to
determine if they could
download from NDE-NM (yes).
Advised how he can print
without export. Also told him
to try and run the export over
a break to see if the export
eventually comes up. User has a
work around, for now.
```

Solution:

Build Steps: ===============   Edit

Lessons Learned: New

Done     🔒 🌐 Internet